

REMARKS/ARGUMENTS

Claims 2-9 and 15-23 are pending.

In responding to the Examiner's prior art rejections, the Applicants here only justify the patentability of the rejected independent claim (e.g., 21). As the Examiner will appreciate, should this independent claim be patentable over the prior art, narrower dependent claims would also necessarily be patentable. Accordingly, the Applicants do not separately discuss the patentability of the dependent claims, although it reserves the right to do so at a later time if necessary.

Claim 21 has been rejected as being anticipated (35 U.S.C. § 102(e)) by Iwazawa et al (EP 1319574) and as being anticipated (35 U.S.C. § 102(b)) by Kifuku (USPN 6,332,506). Based upon each comparison, the Examiner insists that both Iwazawa and Kifuku anticipate the present invention. The Applicants, however, strongly disagree.

It is well established, however, to "anticipate," pursuant to 102, a single prior art reference must disclose each limitation of a claimed invention or its equivalents functioning in essentially the same way as arranged in the claim.

As amended, claim 21 recites:

A method for detecting a fault in an electric power-assisted steering system, the method comprising the steps of:
measuring a *pulse width* of an *output* voltage to an electric power-assisted steering motor;
comparing the measured *pulse width* against a *commanded pulse width*; and
indicating a fault if a difference in the measured and commanded pulse widths exceeds a predetermined error limit.

While Iwazawa relates to a controller controlling an electric motor to provide assist power corresponding to steering operation for an electric power steering apparatus, a careful reading of this reference fails to disclose measuring a *pulse width* of an output voltage to an electric power-assisted steering motor. Rather, Iwazawa discloses detecting and filtering a *voltage* of a *power source* for the electric motor and comparing the voltage to a predetermined threshold (see abstract). Iwazawa determines an abnormality of the power source when the filtered voltage is lower than the predetermined threshold (see abstract). Iwazawa does not measure the *pulse width* (e.g., *time*) of a voltage output to an electric motor as claimed in the present invention.

Turning now to the second reference, while Kifuku relates to motor driven power steering device, a careful reading of this reference also fails to disclose measuring a *pulse width* of an output voltage to an electric power-assisted steering motor. Rather, Kifuku compares first and second terminal *voltages* to a predetermined value, and determines fault when the *voltages* are greater than the predetermined value (see claim 1). Kifuku also does not measure the *pulse width* (e.g., *time*) of a voltage output to an electric motor as claimed in the present invention. The *pulse width* is different than the *actual voltage*.

Based upon this lack of teaching, the Applicants insist that both Iwazawa and Kifuku fail to describe the invention of the present application. Since Iwazawa and Kifuku fail to disclose an essential limitation of the claimed invention; namely, measuring a *pulse width* of an *output* voltage to an electric power-assisted steering motor, there is no anticipation under 35 U.S.C. 102, because the exclusion of a claimed element from the prior art reference is enough to negate anticipation by that reference. For these reasons, the Applicants assert that claims 21-23 in the present application are not anticipated by Iwazawa and may therefore be passed to allowance.

Claims 1-9 and 15-20 are allowed.

The Applicants believe that the subject application is in condition for allowance. Such action is earnestly solicited by the Applicants.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicants' attorney at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

Please charge any fees that may be due to Deposit Account 502117, Motorola, Inc.

Respectfully submitted,

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